

Value of GFR and Albuminuria in Predicting Cardiovascular Outcomes

Glomerular filtration rate and albuminuria did not add value to traditional risk factors.

Multiple studies have shown that albuminuria and low estimated glomerular filtration rate (eGFR) predict development of adverse cardiovascular outcomes. Using data from two large studies — ONTARGET ([JW Gen Med Sep 2 2008](#)) and TRANSCEND ([JW Cardiol Sep 17 2008](#)) — involving more than 27,000 patients (age, >55) who had vascular disease or diabetes with symptoms of end-organ involvement, researchers evaluated whether eGFR and albuminuria added predictive power beyond that of traditional risk factors.

Mean follow-up was 4.6 years. Low eGFR and elevated urine albumin–creatinine ratios were associated with excess risk for cardiovascular-related death, myocardial infarction, stroke, or hospitalization for heart failure. However, after controlling for traditional cardiovascular risk factors (i.e., age, sex, diabetes, cardiovascular disease, smoking status, blood glucose and LDL cholesterol levels), addition of eGFR or urine albumin–creatinine ratio failed to improve classification of individuals who did or did not experience adverse cardiovascular outcomes during follow-up.

Comment: In this study, eGFR and albuminuria failed to significantly improve risk stratification beyond that of traditional cardiovascular risk factors. Of note, the study was conducted among a high-risk population, and the findings might not apply to lower-risk individuals.

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Dr. Moloo enrolled patients in ONTARGET and TRANSCEND but was not involved in this data analysis.

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